Laboratory	**Sri Calibrations Services, H. No. 12-10-335/3/A, Fl. No. S1 & S2, Nomula Lakshmi Residency, Seethaphalmandi, Secunderabad, Telangana**		
Accreditation Standard	**ISO/IEC 17025: 2005**		
Discipline	**Mechanical Calibration**	**Issue Date**	**01.08.2015**
Certificate Number	**C-0943**	**Valid Until**	**31.07.2017**
Last Amended on	**03.08.2015**	**Page**	**1 of 7**

Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (±)	Remarks
I. DIMENSION			
1. Caliper (Digital/Vernier/Dial) $ **L.C.: 0.01mm Φ**	Upto 300 mm	0.011 mm	Using Caliper Checker & Gauge Block Set by Comparison method
2. Depth Caliper $ (Vernier/Dial) L.C.: 0.02 mm	Upto 300 mm	0.013 mm	Using Gauge Block Set by Comparison method
3. Height Gauge $ (Vernier/Dial) L.C.: 0.02 mm	Upto 300 mm	15µm	Using Caliper Checker & Gauge Block Set by Comparison method
4. Height Gauge $ (Dial/Digital) L.C.: 0.01 mm	Upto 600 mm	0.012 mm	Using Caliper Checker & Gauge Block Set by Comparison method
5. External Micrometer $ (Analog/Digital)			
L.C.: 0.001 mm	Upto 25 mm	0.001 mm	Using Gauge Block Set by Comparison method
L.C.: 0.01 mm	Upto 50 mm	6.5 mm	

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	Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (±)	Remarks
6.	**Depth Micrometer $ (Analog/Digital) L.C.: 0.01 mm**	Upto 50 mm	0.006 mm	Using Gauge Block Set by Comparison method
7.	**Dial /Digital Gauge $ (Plunger Type) L.C.: 0.001 mm Φ**	Upto 25 mm	0.003 mm	Using Dial Calibration Tester by Comparison method
8.	**Dial /Digital Thickness Gauge $ L.C.: 0.01 mm**	Upto 10 mm	0.006 mm	Using Gauge Block Set by Comparison method
9.	**Radius Gauge**	0.5 mm to 25 mm	0.0049 mm	Using Profile Projector
10.	**Pitch Gauge $ (Pitch & Angle)**	Upto 7 mm	0.046 mm to 3.31 min	Using Profile Projector by Comparison method
11.	**Test Sieves $**	0.05 mm to 50 mm	0.0061 mm	Using Profile Projector by Comparison method
12.	**Bevel Protractor $ L.C: 5 min.**	90° X 4 Quadrants	4.4 min of arc	Using Profile Projector by Comparison method
13.	**Sheet Metal Protractor $ L.C: 1°**	0 to 180°	1.9°	Using Profile Projector by Comparison method

	Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (±)	Remarks
14.	**Combination Set/Angle Protractor** [$] **L.C: 1°**	0 to 180°	1.9°	Using Profile Projector by Comparison method
15.	**Steel Scale** [$] **L.C : 1 mm**	Upto 1000 mm	0.123 mm	Using Tape & Scale Calibration Unit by Comparison method
16.	**Steel Tape** [$] **L.C : 1 mm**	Upto 1000 mm	$0.25\sqrt{\frac{L}{1000}}$ mm (L in mm)	Using Tape & Scale Calibration Unit by Comparison method
17.	**Woven Metallic/ Fiber Tape** [$] **L.C : 5 mm**	Upto 1000 mm	$0.25\sqrt{\frac{L}{1000}}$ mm (L in mm)	Using Tape & Scale Calibration Unit by Comparison method
18.	**Pie Tape** [$] **L.C : 1 mm**	20 mm to 1500 mm	0.60 mm	Using Tape & Scale Calibration Unit by Comparison method
19.	**Feeler Gauge** [$]	0.02 mm to 1 mm	0.0017 mm	Using Digimatic Micrometer by Comparison method
20.	**Lever Dial Gauge** [$] **L.C : 0.001 mm** [Φ]	Upto 0.7 mm	0.003 mm	Using Dial Calibration Tester by Comparison method
21.	**Dial Bore Gauge** [$] **L.C : 0.001 mm**	Upto 2 mm (travel)	0.0031 mm	Using Dial Calibration Tester by Comparison method

	Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (±)	Remarks
II.	**MASS**			
1.	**Weights** [$] **(Conventional) M_1 Class & Coarser**	1 mg	0.01 mg	Using E1 Class Standard Weights and Mass Comparators Readability: 0.01 mg Upto 81g and 0.1 mg Upto 220 g as per OIML R-111
		2 mg	0.01 mg	
		5 mg	0.01 mg	
		10 mg	0.01 mg	
		20 mg	0.01 mg	
		50 mg	0.01 mg	
		100 mg	0.01 mg	
		200 mg	0.01 mg	
		500 mg	0.01mg	
		1 g	0.02 mg	
		2 g	0.02 mg	
		5 g	0.02 mg	
		10 g	0.02 mg	
		20 g	0.02 mg	
		50 g	0.02 mg	
		100 g	0.1 mg	
		200 g	0.1 mg	
	M_2Class & Coarser	500 g	0.01 g	Using M1 Class Standard Weights and Mass Comparator: (Readability: 10 mg Upto 6.1 kg and above 6.1 kg Upto 60.0 kg it is 1 g as per OIML R-111
		1 kg	0.02 g	
		2 kg	0.02 g	
		5 kg	0.03 g	
		10 kg	1.0 g	
		20 kg	1.5 g	
		50 kg	1.5 g	

	Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (±)	Remarks
2.	**Electronic Weighing Balance** [$]			
	d=0.01 mg	0 to 200 g	0.02 mg	Using E1 Class Standard Weights & Calibration of electronic weighing balance of class II and coarser as per OIML R76-1
	d=0.1 mg	0 to 200 g	0.17 mg	
	d=1 mg	0 to 6 kg	30 mg	
	d=10 mg	0 to 6 kg	30 mg	
	d=100 mg	0 to 6 kg	140 mg	
	d=100 mg	0 to 50 kg	250 mg	Using M1 Class Standard Weights & Calibration of electronic weighing balance of class II and coarser as per OIML R76-1
	d=1 g	0 to 50 kg	2.0 g	
	d=1 g	0 to 500 kg	5.0 g	Using M1 Class Standard Weights & Calibration of electronic weighing balance of class II and coarser as per OIML R76-1
	d=10 g	0 to 500 kg	50 g	
	d<100 g	0 to 500 kg	180 g	
3.	**Calibration of Pipettes/Micropipettes** [$]	>10 µl to 100 µl	0.18 µl	Using Standard Weights E1 Class, precision Weighing Balance and Distilled Water of known density. Procedure based on ISO: 8655 – 6
		> 100 µl to 1000 µl	3.0 µl	
		> 1 ml to 10 ml	0.06 ml	
		> 200 ml to 5000 ml	0.45 ml	
4.	**Calibration of Burette** [$]	>1 ml to 10 ml	0.06 ml	Using Standard Weights E1 Class, precision Weighing Balance and Distilled Water of known density. Procedure ISO: 4787 (part 6)
		>10 ml to 100 ml	0.58 ml	

	Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (±)	Remarks
5.	**Calibration of Measuring Cylinder/Vol/Flask/ Graduated jar** [$]	>1 ml to 10 ml	0.06 ml	Using Standard Weights E1 Class, M1 Class, precision Weighing Balance and Distilled Water of known density. Procedure ISO: 4787 (part 6)
		>10 ml to 500 ml	0.06 ml	
		>500 ml to 2500 ml	1.84 ml	
6.	**Density Hydrometer** [$]	0.600 g/ml to 0.90 g/ml	0.0012 g/ml	Using Standard Hydrometers & Comparison method with Standard Hydrometer as per IS 3104.
		0.95 g/ml to 1.1 g/ml	0.0012 g/ml	
		1.1 g/ml to 2.0 g/ml	0.0041 g/ml	
III.	**PRESSURE**			
1.	**Digital / Dial Pressure** [#] **Gauges, Transducer, transmitter with Indicator**	0 to 30 kg/cm^2	0.009 kg/cm^2	Using Digital Pressure Gauge & Hydraulic Comparator Pump by Comparison Method
		30 kg/cm^2 to 700 kg/cm^2	0.15 kg/cm^2	
		-700 mmH_2O to +700 mmH_2O	1.2 mmH_2O	Using Low Pressure Pneumatic Pump & Digital Low Pressure Calibrator by Comparison Method
		0 to 1 bar	0.007 bar	
2.	**Vacuum Gauges** [#]	-0.91 bar to 0	0.0006 bar	Using low pressure / vacuum pump & Digital Pressure Calibrator by Comparison Method

Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (±)	Remarks
IV. ACCELERATION & SPEED			
1. RPM (Tachometer- Non contact type) $	60 rpm to 60000 rpm	0.2 rpm to 10.3 rpm	Using Multi Product Calibrator with Tachometer calibration adapter as per SANAS
2. RPM of Centrifuge ♣	100 rpm to 19000 rpm	2.8 rpm	Using Digital Tachometer (Non contact) as per SANAS
V. ACCOUSTICS			
1. Sound Level Meter $	**@ 1 kHz**		
	94 dB	0.81 dB	Using Sound Level Calibrator
	114 dB	0.81 dB	

*** Measurement Capability is expressed as an uncertainty (±) at a confidence probability of 95%**
$Only in Permanent Laboratory
♣Only for Site Calibration
 # The laboratory is also capable for site calibration however, the uncertainty at site depends on the prevailing actual environmental conditions and master equipment used.
Φ Laboratory can also calibrate instruments/devices of coarser resolution / least count within the accredited range using same reference standard/ master equipment under the scope of accreditation.

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